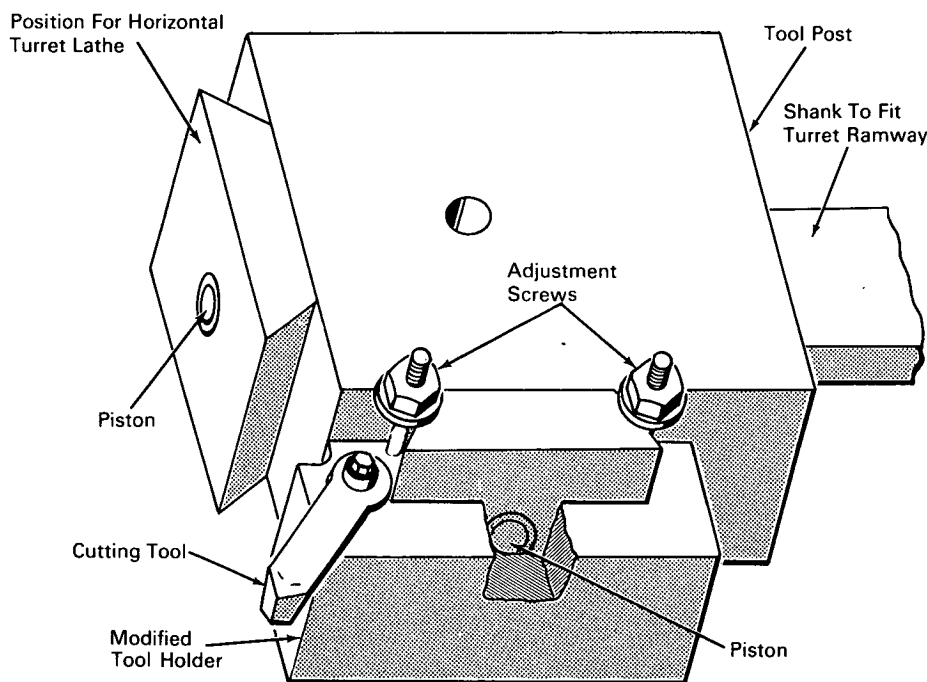


NASA TECH BRIEF



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Tool Post Modification Allows Easy Turret Lathe Cutting-Tool Alignment



The problem:

Cutting tools on turret lathes must be aligned on the center of the spindle. Long operation causes the turret ramways to wear, resulting in tool misalignment. Proper alignment requires time-consuming adjustments of the tool angle.

The solution:

Modify the existing tool holder to allow the necessary alignment, independent of the cutting-tool angle

adjustment, and design the tool post with a hydraulic lock-in feature to keep the tool holder in position.

How it's done:

The tool holder is modified to accommodate two adjustment screws that move the tool holder up or down along the tool post until the tool is aligned with the spindle as required.

The tool post contains a hydraulic system which, once the cutting tool is aligned with the spindle, is

(continued overleaf)

actuated by a valve to transmit pressure to a piston. The piston in turn bears against the tool holder, locking it in place.

Notes:

1. The tool post can be used on horizontal and vertical turret lathes and other engine lathes.
2. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama, 35812
Reference: B66-10191

Patent status:

No patent action is contemplated by NASA.

Source: Lee Fouts
of North American Aviation, Inc.
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Marshall Space Flight Center
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